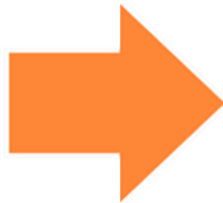


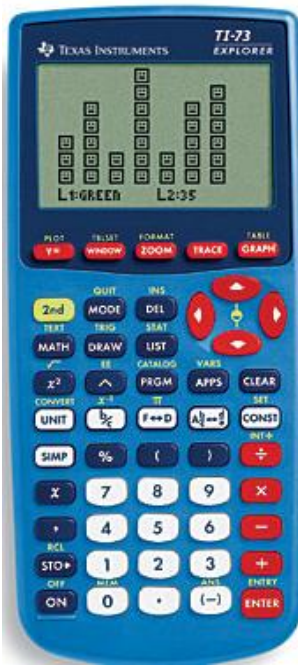
Calculator Technology For Teaching Mathematics



RRISD Calculators – Vertically Aligned

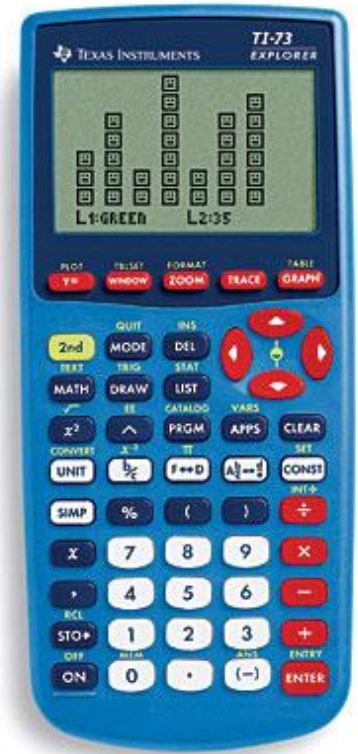


- TI-10 –Kinder – Gr. 2
- TI-15 Explorer – Gr. 3 – 5
- TI-73 Explorer – Gr. 6 – 7
- TI-83/84+ – Grade 8 - High Sch.



TI-73 Explorer Graphing Calculator for Middle Grades

The TEKS for grades 6-8 math state that students will investigate mathematics in meaningful contexts.



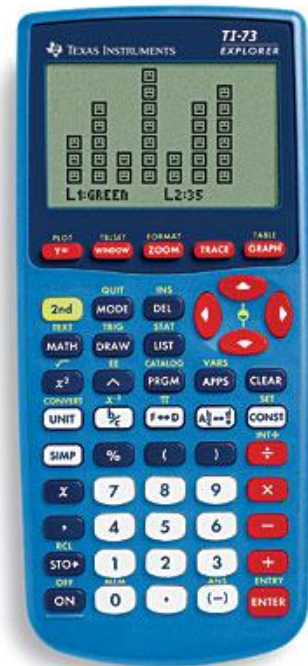
Graphing Technology Resources and Extensions

- TI-Smartview Emulator (software)
- CBL (Calculator Based Lab)
- CBR (Calculator Based Ranger)
- TI-Connect (free download) – connectivity
 - Download and share screenshots
 - Download free Apps from the TI website
 - Update calculator operating system
 - Share data between calculator and computer (internet)

Looking at Data...

The graphing technology allows students to get beyond the mechanics of creating graphs to viewing and analyzing the data mathematically.

- TEKS 8.12C example TAKS item
- TEKS 6.10D example TAKS item



Technology at the Middle Schools



TI-73
Explorer

CBR



TI-83

Technology at the High Schools



CBR



TI - 84+



CBL & probes

New TI-10 Calculators



Classroom sets of new TI-10 calculators have been purchased for each campus.

The TI-10 calculators are for Kindergarten – Grade 2

New TI-15 Explorer Calculators



Classroom sets of new TI-15 Explorer calculators have been purchased for each campus.

The TI-15 Explorers are for grades 3 – 5.

New Elementary TI-10 and TI-15 Explorer Calculators

Why?

- The TEKS in Grades K – 5 require the use of calculator technology.
- By Grade 6, the TEKS require the use of graphing calculators.
- The TI-15 Explorer is aligned vertically with the TI-10 for Grades K-2 and the TI-73 Explorer for Grades 6-7.
- Calculators are important tools for learning and doing mathematics.



New Elementary TI-10 and TI-15 Explorer Calculators

For What?



- As a way to explore number concepts
- As a tool for generating data that can be studied for patterns
- As a highly efficient and accurate tool for computing in problem-solving contexts
- As a tool to use when cumbersome computations are needed to solve problems.

New Elementary TI-10 and TI-15 Explorer Calculators

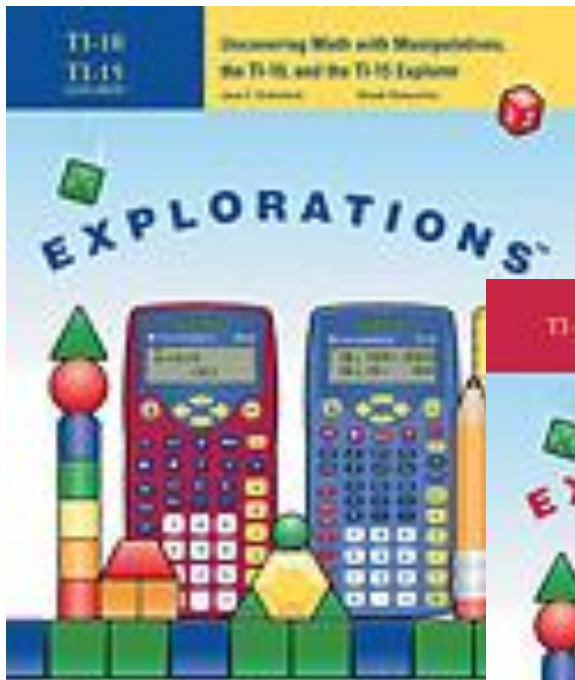
When?

- The focus of instruction is problem solving.
- The availability of an efficient and accurate computational tool is important.
- The lesson involves a search for, and an exploration of, patterns.
- Anxiety about computation might hinder problem solving.
- Student motivation and confidence can be enhanced through calculator use.

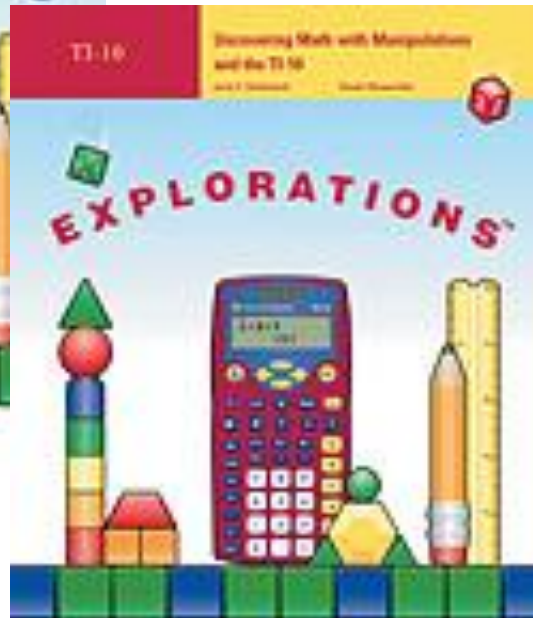


Resources to Support Calculators!

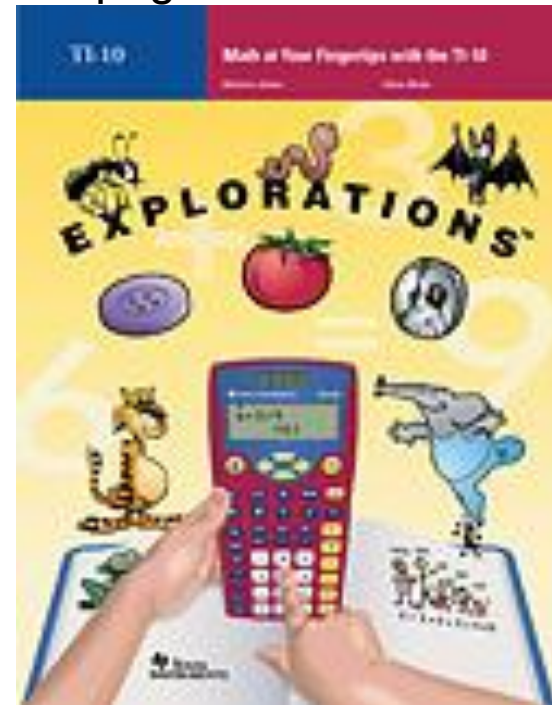
Several copies of these books have been purchased for your campus. You may check them out of your campus library. These books are also online for easy printing of student pages.



For Middle
Elementary

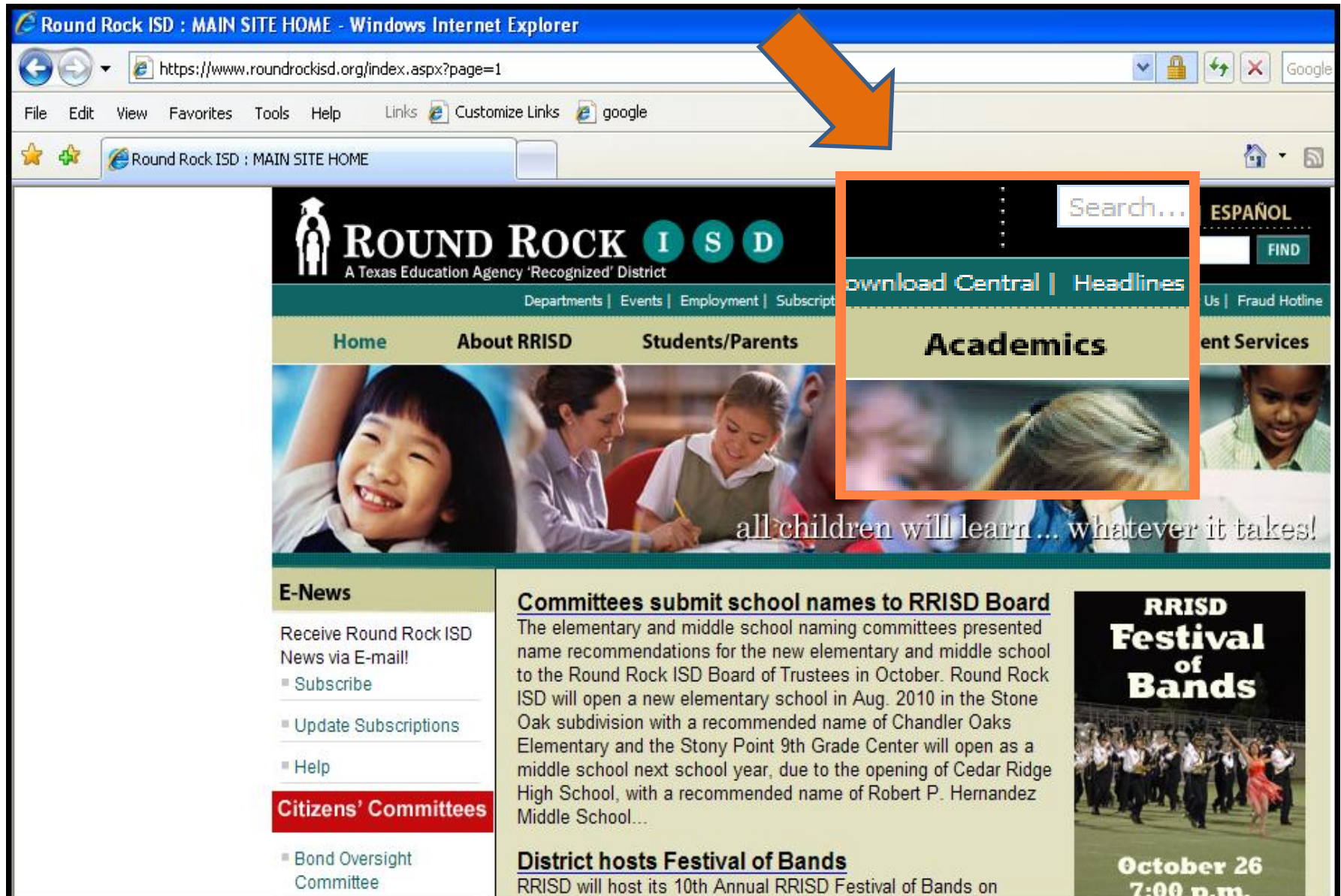


For Upper
Elementary



For Primary
Grades

To Find Online Resources



The screenshot shows the Round Rock ISD website in a Windows Internet Explorer browser. The address bar displays the URL <https://www.roundrockisd.org/index.aspx?page=1>. The browser's menu bar includes File, Edit, View, Favorites, Tools, Help, Links, Customize Links, and google. The website header features the Round Rock ISD logo, a search bar, and a language selector for ESPAÑOL. The main navigation menu includes Home, About RRISD, Students/Parents, Academics, and Parent Services. A large banner image shows a group of children and adults, with the text "all children will learn... whatever it takes!". The left sidebar contains an E-News section with links to Subscribe, Update Subscriptions, and Help, and a Citizens' Committees section with a link to the Bond Oversight Committee. The main content area features a news article titled "Committees submit school names to RRISD Board" and a section for the "RRISD Festival of Bands" scheduled for October 26 at 7:00 p.m.

Round Rock ISD : MAIN SITE HOME - Windows Internet Explorer

https://www.roundrockisd.org/index.aspx?page=1

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Home About RRISD Students/Parents

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- Help

Citizens' Committees

- Bond Oversight Committee

Committees submit school names to RRISD Board

The elementary and middle school naming committees presented name recommendations for the new elementary and middle school to the Round Rock ISD Board of Trustees in October. Round Rock ISD will open a new elementary school in Aug. 2010 in the Stone Oak subdivision with a recommended name of Chandler Oaks Elementary and the Stony Point 9th Grade Center will open as a middle school next school year, due to the opening of Cedar Ridge High School, with a recommended name of Robert P. Hernandez Middle School...

District hosts Festival of Bands

RRISD will host its 10th Annual RRISD Festival of Bands on

RRISD Festival of Bands

October 26
7:00 p.m.

To Find Online Resources

Round Rock ISD : MAIN SITE HOME - Windows Internet Explorer

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Citizens' Committees

- Bond Oversight Committee

Committees submit school names to RRISD

The elementary and middle school committees have submitted name recommendations for the new schools to the Round Rock ISD Board of Trustees in October. Round Rock ISD will open a new elementary school in August 2010 in the Oak subdivision with a recommended name of Chandler Elementary and the Stony Point 9th Grade Center will open a new middle school next school year, due to the opening of the new High School, with a recommended name of Robert P. H. Middle School...

District hosts Festival of Bands

RRISD will host its 10th Annual RRISD Festival of Bands on

Academics

- Academics
- Aligned Round Rock Curriculum
- Career and Technical Education
- Career Development
- Course Catalogs
- Fine Arts
- Gifted & Advanced Academic Services
- Graduate Profile
- Graduation Requirements
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Mathematics

- PE/Wellness
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- Social Studies
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- Fine Arts

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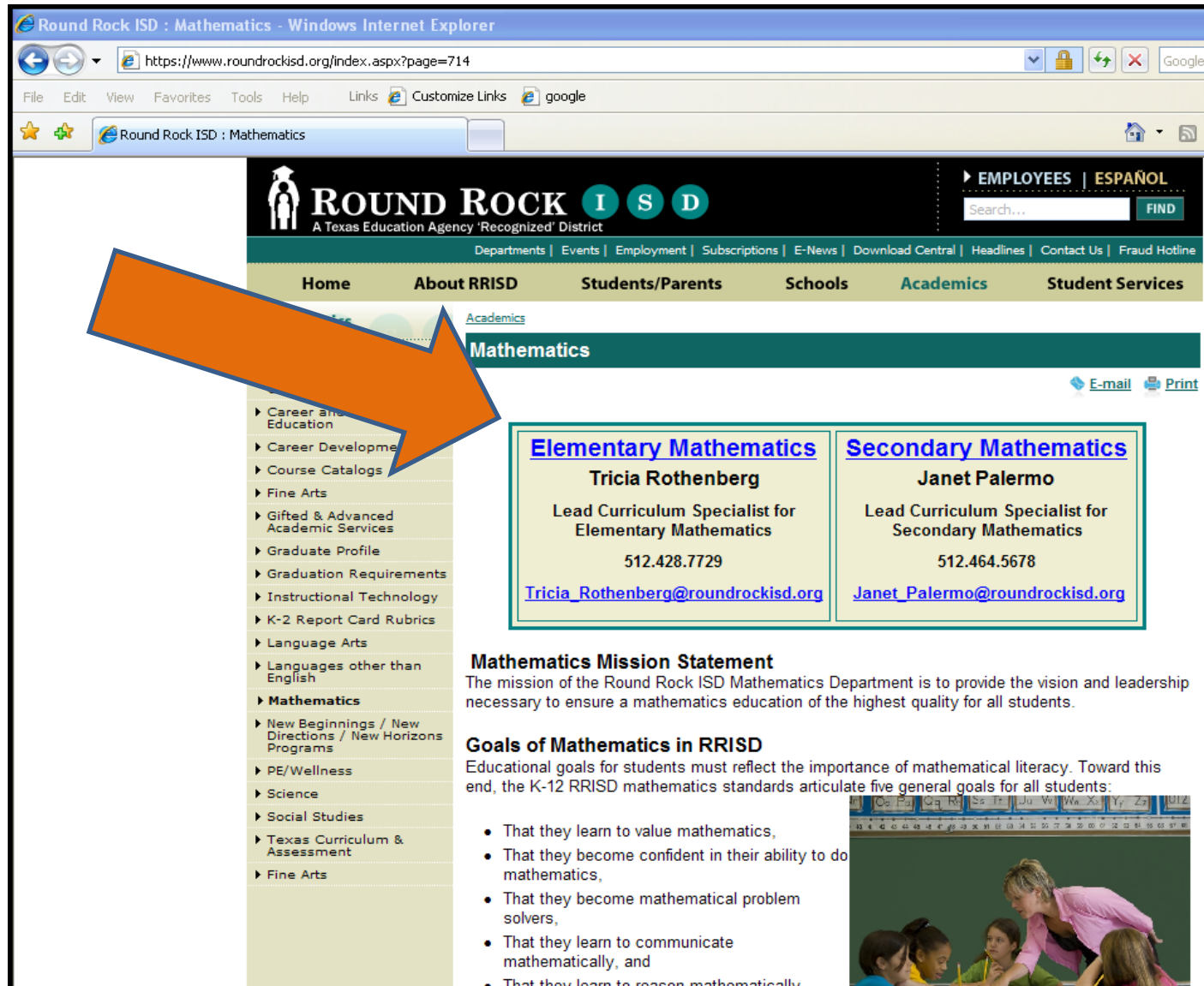
nt Services

it takes!

r 26

7:00 p.m.

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Round Rock ISD : Mathematics - Windows Internet Explorer

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Round Rock ISD : Mathematics

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► Language Arts
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► **Mathematics**
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► PE/Wellness
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► Social Studies
► Texas Curriculum & Assessment
► Fine Arts


Elementary Mathematics
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Secondary Mathematics
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Lead Curriculum Specialist for Secondary Mathematics
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Janet_Palermo@roundrockisd.org

Mathematics Mission Statement
The mission of the Round Rock ISD Mathematics Department is to provide the vision and leadership necessary to ensure a mathematics education of the highest quality for all students.

Goals of Mathematics in RRISD
Educational goals for students must reflect the importance of mathematical literacy. Toward this end, the K-12 RRISD mathematics standards articulate five general goals for all students:

- That they learn to value mathematics,
- That they become confident in their ability to do mathematics,
- That they become mathematical problem solvers,
- That they learn to communicate mathematically, and
- That they learn to reason mathematically.



To Find Online Resources

Round Rock ISD : Elementary Mathematics - Windows Internet Explorer

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Round Rock ISD : Elementary Mathematics

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- PE/Wellness
- Science
- Social Studies
- Texas Curriculum & Assessment
- Fine Arts

Elementary Mathematics

E-mail Print

Contact Information	District Resources	Latest News and Updates in Elementary Mathematics	State Mathematics Resources	National Mathematics Resources	Mathematics Tools and Resources - and - Elementary Mathematics Competitions
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Contact Information

Tricia Rothenberg
Lead Curriculum Specialist for Elementary Mathematics
512.428.7729 Tricia_Rothenberg@roundrockisd.org

Jeri Bonnell
Curriculum Specialist for Elementary Mathematics
512.428.7799 Jeri_Bonnell@roundrockisd.org

[Elementary Instructional Coaches](#) [Elementary Math Contact Teachers](#)
[Wiki for Contact Teachers](#)

District Resources

[ARRC - Aligned](#) Here RRISD teachers will find the scope and sequence for instructional materials for each grade level.

To Find Online Resources



Mathematics Tools and Resources	
TI Calculator Explorations Series Activities	You can download individual activities and student pages from Explorations Series books such as <i>Math at Your Fingertips with the TI-10</i> , <i>Uncovering Math with Manipulatives and the TI-10</i> (activities will also work with TI-15), and " <i>Uncovering Math with Manipulatives, the TI-10 and the TI-15 Explorer</i> ."
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Create-a-Graph	Instantly create bar graphs, line graphs, circle graphs, area graphs, or X-Y graphs using a tool from the National Council of Education Statistics.
Online Stopwatch	Project a large digital stopwatch when you need to time tasks.


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Elementary Mathematics by Texas Instruments - US and Canada - Windows Internet Explorer

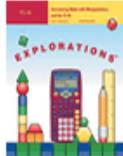
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Engage and challenge young minds using technology to explore grade-specific concepts.
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Uncovering Math with Manipulatives, the TI-10 and the TI-15 Explorer
Demonstrate the use of technology to support explorations of math concepts and ideas.
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A World of Mathematics: Activities for Grades 4, 5, and 6 using the TI-15
Use the calculator to solve these focused math activities.
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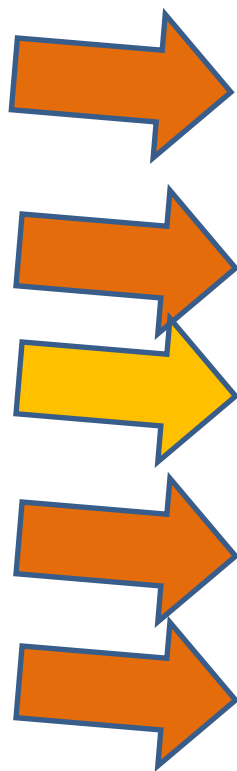


Developing Problem-Solving Skills with the TI-15
Enhance students' math skills using the calculator as a problem-solving tool.
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Discovering Mathematics with the TI-73: Activities for Grades 5 and 6
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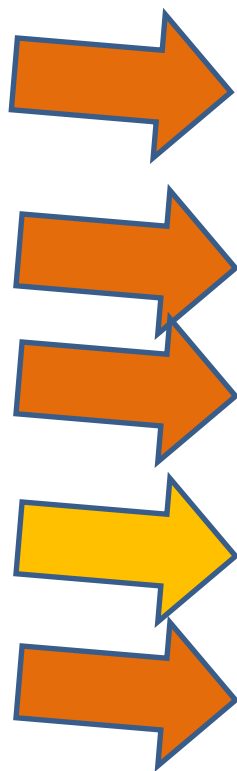
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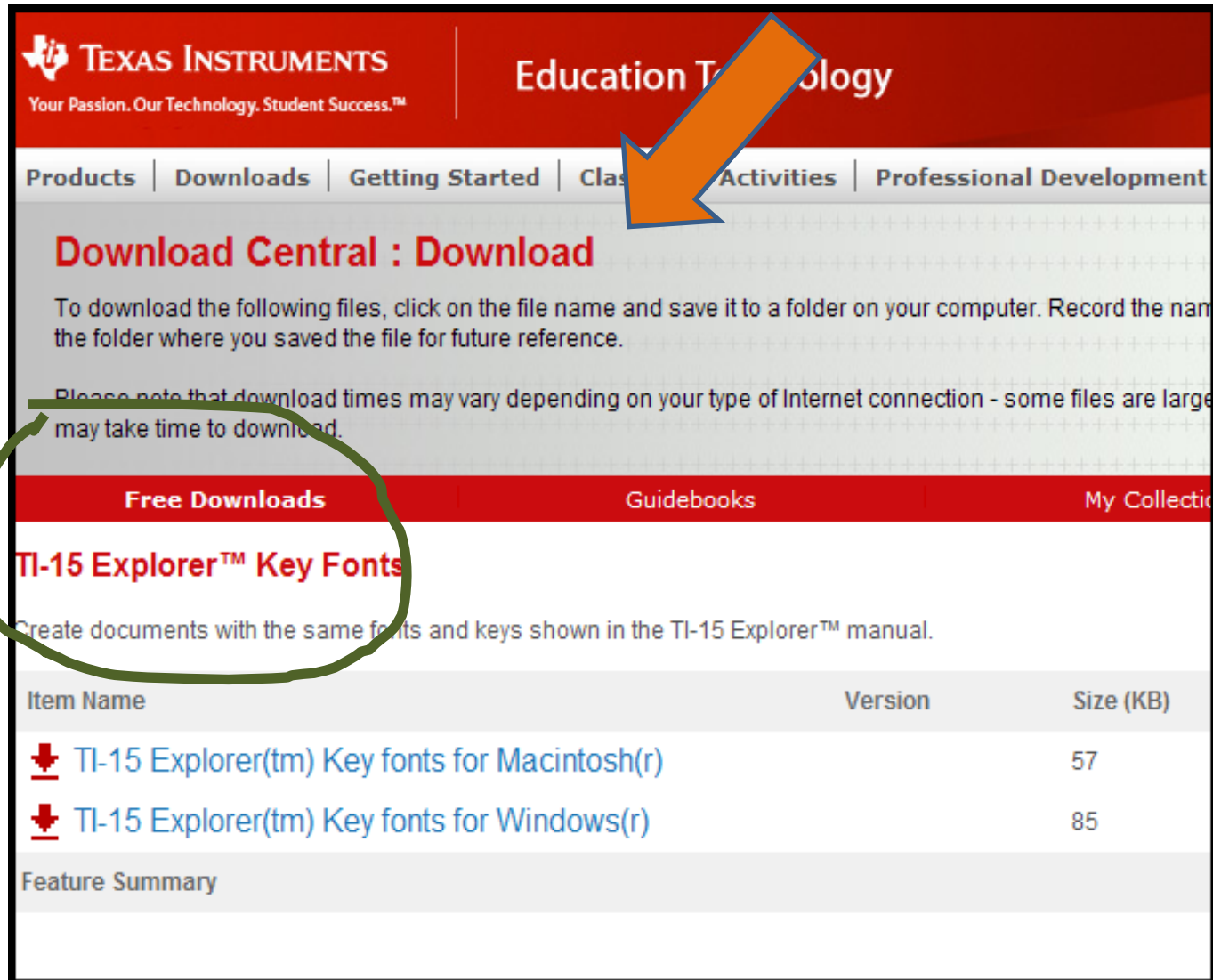
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TI-15 Explorer™ Key Fonts

Create documents with the same fonts and keys shown in the TI-15 Explorer™ manual.

Item Name	Version	Size (KB)
 TI-15 Explorer(tm) Key fonts for Macintosh(r)		57
 TI-15 Explorer(tm) Key fonts for Windows(r)		85

Feature Summary

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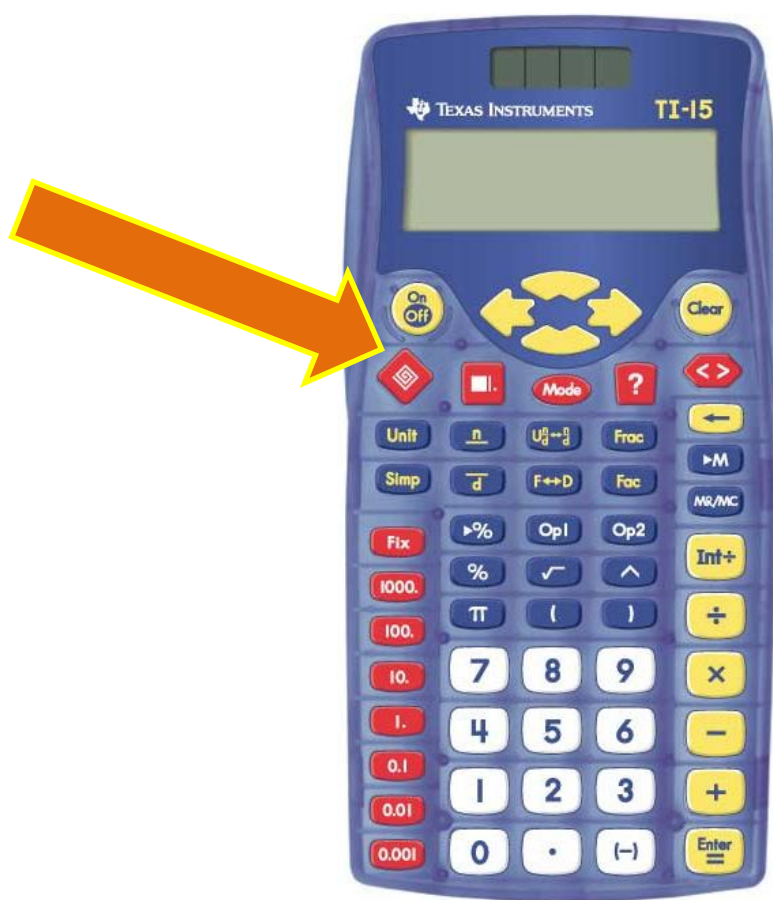
Random Remainders and Recurring Remainders

Using the calculator to investigate the relationship between divisors and remainders in whole-number division



The Problem Solving Key

Exploring Patterns with the TI-10 and TI-15



Questions

... And Answers





New Elementary Calculators



Sources:

Barbara J. Reyes, Fran Arbaugh, & Jean Joyner. "Clearing Up the Confusion Over Calculator Use in Grades K-5." *Teaching Children Mathematics*, October 2001.

Jane F. Schielack & Clarence J. Dockweiler. "Elementary Mathematics and Calculators: Let's Think About It." *School Science and Mathematics*, November 1992.

Carola C. Dresdeck. "Promoting Calculator Use in Elementary Classrooms." *Teaching Children Mathematics*, January 1995.